

ORIGINAL

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C.

In re:

AMENDMENT OF SECTION 73.622(b)
TABLE OF ALLOTMENTS
DTV BROADCAST STATIONS
CALAIS, MAINE

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)
)
)

MM Docket No.

TO: Chief, Allocations Branch
Policy and Rules Division

RECEIVED
JUN 13 2001
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

PETITION FOR RULEMAKING

Maine Public Broadcasting Corporation ("MPBC"), licensee of noncommercial educational station WMED-TV ("WMED"), NTSC Channel *13, DTV Channel *15, Calais, Maine, by its attorneys and pursuant to the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622(b) of its Rules to substitute DTV Channel *10 in lieu of DTV Channel *15 as WMED's paired digital channel in Calais, Maine. This substitution of paired digital channels would serve the public interest. In addition, as the attached technical documentation demonstrates, WMED's proposed operation on Channel *10 will not cause impermissible interference to any other stations.

MPBC proposes the following amendment to Section 73.622(b) of the Commission's Rules:

<u>Community</u>	<u>Present</u>	<u>Proposed</u>
Calais, Maine	*15	*10

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In support of this petition, MPBC submits the following:

A. A Petition for Rulemaking is the Only Available Avenue of Relief for MPBC

MPBC provides the only domestic television service, public or commercial, to the Calais area. In fact, MPBC has operated noncommercial educational NTSC station WMED on Channel *13 at Orono since 1965, providing high quality educational, informational and cultural programming, including children's programming, to the Calais, Maine area. In the *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, in the Advanced Television Proceeding, MM Docket No. 87-268, FCC 98-315 (released December 18, 1998), the Commission allocated Channel *15 for WMED. MPBC proposes to substitute DTV Channel *10 instead of DTV Channel *15 at Calais, Maine. As demonstrated in the attached Engineering Statement prepared by MPBC's consulting engineer, DTV Channel *10 will work at a proposed new transmitter site, assuming a power/height combination of no more than 3.5kw/200.3m AMSL.

B. The Proposed Change to the Table of Allotments Will Serve the Public Interest

The proposed change to the DTV Table of Allotments will serve the public interest by enhancing WMED's ability to provide high quality noncommercial educational programming. In particular, the proposed substitution will allow MPBC to preserve its limited resources. By necessity, as a noncommercial educational licensee operating a statewide radio and television network with a limited budget of \$11,000,000, MPBC must be a careful steward of its resources, even while it seeks to offer the highest quality of public broadcasting service.

MPBC has looked forward to the early, innovative activation of DTV facilities. In fact, Station WCBB-DT, in Augusta, Maine, which is licensed to MPBC, began digital television operations in January, 2000. The allocation of Channel *15 as WMED's paired DTV channel

for WMED, however, has created some obstacles to the achievement of MPBC's goals. First, the allocation of a UHF DTV channel for WMED would make it more difficult to replicate the station's coverage area due to technical constraints. Moreover, MPBC desires to activate WMED-DT on VHF Channel *10 for financial reasons.

The primary reason MPBC proposes to substitute Channel *10 for Channel *15 is the propagation of hi-VHF versus UHF. Because the VHF Channel *10 power levels are lower, they are less susceptible to terrain and vegetation blockage, which would allow WMED to replicate its existing coverage area from the beginning without a substantial cost investment.

The substitution of DTV Channel *10 for Channel *15 also would result in significant financial savings for MPBC. Operation of the DTV station on Channel *15 with power levels of 186.0 kW as contemplated by the Commission would result in electrical power costs of approximately \$35,000 per year. However, if VHF DTV Channel *10 is used, WMED's electrical power costs would be substantially less at approximately \$10,000 per year. This cost savings of \$25,000 per year is significant, especially when considering the duration of the DTV transition that will last at least until 2006 (during which time dual analog and digital operation will be maintained), and further considering that MPBC has four additional DTV stations in its state network to operate and maintain.

MPBC also estimates a savings of approximately \$650,000 in installation costs if it is permitted to build WMED-DT on Channel *10 rather than Channel *15. MPBC estimates the following additional costs associated with building the DTV station on Channel *15: \$200,000 for the tower, \$100,000 additional cost for the DTV transmitter and \$25,000 for AC power consumption work. Neither the tower nor the update in electrical service would be necessary if WMED-DT were built out on Channel *10. Also, the DTV transmitter cost for Channel *10 is

lower. It would also cost an additional \$325,000, at the end of the DTV transition period, to remove the Channel *15 DTV antenna and convert Channel *13 (WMED's present analog channel) to DTV. However, MPBC contemplates staying on DTV Channel *10 at the end of DTV conversion, so these costs would not be necessary if MPBC is permitted to use DTV Channel *10. Thus, MPBC estimates a total cost savings of \$650,000 if it were allowed to construct WMED-DT on Channel *10.

C. The Proposed Change to the Table of Allotments Will Not Result in Impermissible Interference with Surrounding Stations.

Under Section § 73.622(f)(5) of the Commission Rules, an existing licensee with DTV allotment may seek a change in the station's channel if the licensee demonstrates that the change "complies with the technical criteria in §73.623(c), and thereby will not result in new interference exceeding the *de minimis* standard set forth in that section . . ." In accordance with these rules, MPBC requests that the Commission can substitute DTV Channel *10, at a power/height combination of no more than 3.5kw/200.3m AMSL, for DTV Channel *15. As the engineering statement accompanying this petition demonstrates, the proposed operation of WMEB-DT on Channel *10 with ERP of 3.5 kw and HAAT of 132.8 m would in fact result in no impermissible interference to any other station.

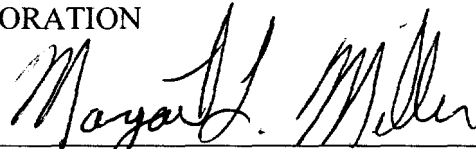
CONCLUSION

For all of these reasons, MPBC requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to substitute DTV Channel *10 for DTV Channel *15 as the paired channel for WMED in Calais, Maine. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, MPBC is committed to applying for and constructing its DTV station for WMED on Channel *10.

Respectfully Submitted,

MAINE PUBLIC BROADCASTING
CORPORATION

By: _____

A handwritten signature in cursive script, appearing to read "Margaret L. Miller", written over a horizontal line.

Todd D. Gray
Margaret L. Miller
Barry S. Persh

Attorneys for Petitioner

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June 13, 2001



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FCC

Washington, DC 20554

Re: Petition to Change DTV Channel Allotment

To Whom It May Concern:

I, Alexander G. Maxwell, Vice President for Operations and Technology at Maine Public Broadcasting, hereby declare under penalty of perjury that the foregoing facts set forth in this Petition for Rulemaking to amend Section 73.622 of the Commission's Rules are true and correct to the best of my knowledge and belief.

By:


Alexander G. Maxwell, Jr.

Title: Vice President for Operations &
Technology

Date: May 21, 2001

ENGINEERING REPORT
PETITION FOR RULE MAKING
TO AMEND SECTION 73.622
OF THE FCC RULES BY SUBSTITUTING
VHF DTV CHANNEL 10 FOR UHF DTV CHANNEL 15
AT CALAIS, MAINE

APRIL 2001

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

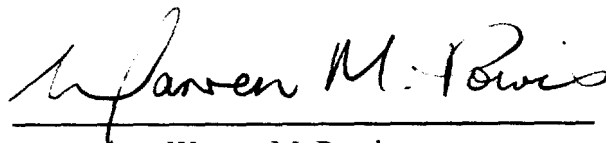
Warren M. Powis, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the University of Canterbury, New Zealand, a Registered Professional Engineer in the District of Columbia, the State of Virginia, the State of South Carolina, and Vice President of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005; previously employed for 15 years with the New Zealand Broadcasting Corporation; a member of the Institution of Professional Engineers New Zealand (IPENZ), the Association of Federal Communications Consulting Engineers (AFCCE), and the National Society of Professional Engineers (NSPE).

That his qualifications are a matter of record in the Federal Communications Commission;

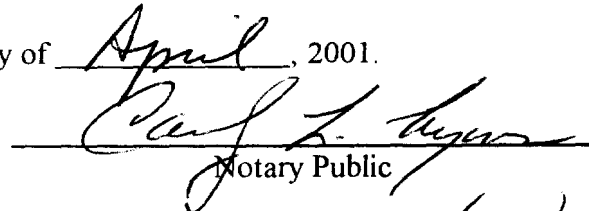
That the attached engineering report was prepared by him or under his supervision and direction and,

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Warren M. Powis
District of Columbia
Professional Engineer
Registration No. 8339

Subscribed and sworn to before me this 20th day of April, 2001.


Notary Public

My Commission Expires: 2/28/2003

COHEN, DIPPELL AND EVERIST, P. C.

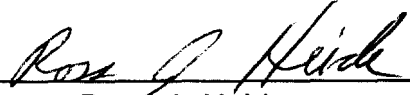
City of Washington)
) ss
District of Columbia)

Ross J. Heide, being duly sworn upon his oath, deposes and states that:

He is a graduate of the Massachusetts Institute of Technology in Operations Research and Management Science, and is a staff engineer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

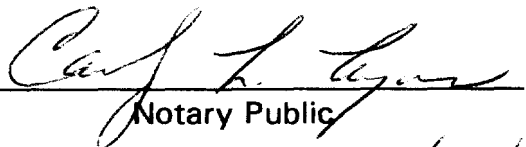
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Ross J. Heide
District of Columbia

Subscribed and sworn to before me this 20th day of April, 2001.



Notary Public

My Commission Expires: 2/28/2003

This engineering report has been prepared on behalf of Maine Public Broadcasting Corporation (MPBC), licensee of non-commercial educational television station WMED-TV, Channel 13*, Calais, Maine, in support of its petition for rule making to amend Section 73.622(b) of the FCC Rules and Regulations. In the original DTV Table of Allotments adopted by the Commission in Appendix B of the Memorandum, Opinion and Order on Reconsideration of the Sixth Report and Order in MM Docket No. 87-168¹, WMED-TV was allotted UHF Channel 15* for its DTV channel at its licensed NTSC site. MPBC proposes to substitute DTV Channel 10* instead of DTV Channel 15* at Calais, Maine, as an amendment to FCC Rule Section 73.622(b) as follows:

Calais, Maine

Section 73.622(b); Substitute DTV Channel 10* for Channel 15*

The reference coordinates for the proposed DTV allotment are modified slightly to reflect the most recent survey and tower registration:

NAD-27

North Latitude: 45° 01' 45"

West Longitude: 67° 19' 26"

Allocation Situation

It is proposed to operate the Channel 10* allotment with a maximum non-directional ERP of 3.5 kW with a radiation center of 200.3 meters AMSL (132.8 meters HAAT). The coordinates and height correspond to the authorized construction permit for the allotted DTV Channel 15*

¹Adopted February 17, 1998, Released February 23, 1998.

*Non-commercial educational allotment.

(BPEDT20000203AAG). WMED-DT will serve its principal community with greater than 43 dBu predicted signal level. The attached Table I shows the domestic allocation and interference situation for the proposed DTV Channel 10* allotment. Table I indicates the potential interference population will not exceed the Commission's guidelines provided in its Public Notice dated August 10, 1998 (Additional Application Processing Guidelines for Digital Television (DTV)). It should be noted that the affected stations are also operated by MPBC. Therefore, the proposed operation would not have any adverse impact on the existing analog or proposed DTV allotments.

Based on the FCC CDBS data base as of April 18, 2001, there are no Class A television stations that are affected by the proposed facilities.

Reasons for Channel Substitution

The proposed channel substitution will enable MPBC to operate with significantly lower costs for transmitter, antenna, transmission line, and AC power consumption. Accordingly, the proposed Channel 10* DTV substitution will enable MPBC to bring a new digital non-commercial television service to the Calais, Maine, area while reducing operational and capital costs. Furthermore, the proposed co-channel arrangement will allow MPBC to exercise greater control over any interference to its service areas. The proposed channel substitution, therefore, would serve the public interest.

FCC staff have informally and unofficially indicated that the proposed new channel and facilities protect Canadian TV stations according to the draft agreement.

TABLE I
INTERFERENCE ANALYSIS
WMED-DT, CALAIS, MAINE
APRIL 2001

A study of predicted interference caused by the proposed WMEB-DT service has been performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (July 2, 1997) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows98/Intel platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC's evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system and/or processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, e.g., new interference equals total interference less baseline interference. The effect is further reduced for ratios of calculated population values, e.g., incremental population affected as a percent of total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 4 km² using 3-second terrain data sampled approximately every 0.1 km at one degree azimuth intervals with 1990 census centroids.

Baseline WMED-DT: Allotment, CH.15, 186.0 kW, 134 meters HAAT,
 N45°01'44"Lat., W67°19'24"Long. (NAD-27)

Proposed Change: CH.10, 3.5 kW, 132.8 meters HAAT,
 N45°01'45"Lat., W67°19'26"Long. (NAD-27)

<u>Affected Station</u>	<u>Distance/Bearing and Spacing</u>	<u>New Interference (% of Population Served)</u>
WCBB(TV), CH.10 Augusta, ME CP 316 kW 304 M HAAT	234.4 km/246° 4% short-spaced	0.5%
WMEM-TV, CH.10 Presque Isle, ME CP 281 kW 353 M HAAT	173.4 km/348° 37% short-spaced	0.6%